

最齊全的機種
才能因應所有LSR射出需求

Professional Total Solution Provider



LSR-series

宜得世 矽膠射出機

EdeX LSR Injection Molding Machine

涵蓋立式/臥式系列

LSR 矽膠射出機 機種最完備

Vertical / Horizontal Type LSR Total Solution



LSR矽膠

Liquid Silicone Rubber

LSR液態矽膠具有無毒、柔軟、透明、耐溫、耐光、耐化學、絕緣等性質，涵蓋各類通訊、電子、醫療耗材、保健、嬰兒用品及食品及產品.....等，其中電子封裝、醫療、雙材質產品等產業需求逐漸擴大，對精密度要求也不斷提高。

LSR features being soft, non-toxic, transparent, temperature-resistant, chemical-resistant, insulation...etc. It is used in different forms of communications, electronics, medical supplies, water-proof parts...etc.

- 矽膠是熱固性塑料，擁有極低的收縮率，可以生產精密零組件產品。
- 矽膠是唯一可在200度以上高溫使用的透明塑料，可生產光學透鏡。
- 矽膠在大氣環境中，長時間也幾乎不會變質，可生產耐候耐久產品。
- 矽膠是環保塑料，可自然降解回歸大自然的環境中，不會造成汙染。
- 矽膠是無毒性塑料，可生產食品容器、奶嘴等產品，絕對符合安全。
- 矽膠具有良好的電絕緣性，隔熱、散熱性佳，耐候性強可長期使用。
- 矽膠具有良好的延展性和抗撕裂性，可生產負角度和複雜形狀產品。
- 矽膠具有良好的耐化學性和防水性，因此可生產防水圈以及密封件。

LSR is thermosetting material with a very low shrinkage rate.

LSR can produce optical lens with high temperature resistance properties.

LSR features low pollution, durable, weather resistant, non-toxic, electrical insulation and thermal insulation properties can be used in food container, medical product and water proof applications...etc.

生產注意事項 / Production Notice

LSR 溢料處理 LSR flash processing

LSR具較低的黏度特性，容易在分模線溢料，模具平面精度會被賦予較高的精密等級，在澆口遠端設計排氣溝槽，可以避免包住空氣，更可以確認以較低射出壓力可以完成良好產品。
LSR has a lower viscosity properties, it is easy to flash in the parting line so that the LSR production requires low injection pressure and precision finishing for the mold.

LSR 低收縮率 LSR low shrinkage rate

LSR是屬於熱膨脹成型工法，理論上在熱模具內並不會收縮，但在離模冷卻後則會有平均收縮，厚件產品比薄件收縮率低，這是和熱塑化塑膠不一樣的地方。直向收縮會比側向大，澆道位置的安排因此必須慎重考慮。
LSR features thermal expansion property, evenly shrink after mold released, so that the design and the gate position of the mold are different from conventional mold.

LSR 模具排氣 LSR mold venting

LSR屬於相對低壓的射出工法，模腔中空氣要擠壓出模面會有較大困難，鎖模力不要使用太大，或可利用先鬆後緊兩段鎖模來改善。以真空機抽出模腔的空氣會更好，對某些精密等級矽膠產品更不可或缺，模具模腔周圍會被要求銑槽溝加密封件配合。
LSR production requires low injection pressure and vacuum pump application to increase mold venting.

LSR 澆口特性 LSR gate feature

LSR黏度低，澆道的平衡性很重要，澆道轉彎處宜採圓弧角度，小口徑澆口即可生產，配合大面積產品可採多澆口設計，也可採取膜狀澆口，射出更平均。
LSR mold also used small diameter gate or flash gate to make the LSR flow evenly.

LSR 冷澆道 LSR cold runner

LSR冷澆道可搭配熱矽膠模設計，需使澆道和產品確實隔熱，以避免矽膠硬化，也可節省矽膠使用，開放式和閥針式可依產品和模具狀況設計。
By using cold runner system in the mold can deduce LSR usage.

LSR 脫模多樣性 LSR mold release

LSR較為柔軟，極易緊貼模面造成脫模困難，在較複雜的產品，可利用其較佳的延展性，採取更換模仁的人工取件方式，標準的頂梢、平板脫模都可能同時採用，必要時亦可再利用高壓空氣協助離模。矽膠因為是熱膨脹原理，因此黏模不一定會在模仁，也可能在較大接觸面和較小角度的一邊，設計模具時須多考量。
The diversity of LSR mold release, such as using change cavity, ejector and air to assist parts release smoothly. The LSR part might not in the cavity after mold opened, it caused by LSR thermal expansion properties, need to be considered more while design the mold.

宜得世 LSR矽膠射出設備整合專家

Specialist of LSR injection equipment integration

宜得世擁有最齊全的射出機系列 才能涵蓋所有LSR矽膠射出產品 EdeX has the most complete models to meet all kinds of LSR product

宜得世從立式、臥式射出機的完備性，到供料機的搭配，提供全方位應用解決方案，根據射出產品的體積、結構、產品重量、精密等級，推薦適合的LSR矽膠射出機，搭配適合的供料設備，宜得世提供從開發到生產的技術服務，為客戶節省寶貴時間，讓投資更精準。

宜得世LSR矽膠射出機，全方位提升液態矽膠生產工法，因應LSR低黏度及熱膨脹固化特性，全新設計LSR專用料管組，搭配主動/被動鎖固式螺桿頭，可確保低黏度的矽膠進行有效的鎖固，獨家開發極低速射出動力程式，可生產無波紋光學厚件；搭配發明專利柱塞式射出工法，可生產0.01g微小手機防水件；整合嵌入式自動射出系統，提升LSR矽膠生產層次；雙色、三色LSR矽膠射出機，使LSR矽膠射出更多元。

EdeX Technology has complete horizontal / vertical injection machine models and dosing system to recommend our clients suitable machine by product requirement, we provide technical support from development to production, make our client's investment more precise and save valuable time.

By using new designed barrel set and auto / standard check ring screw, make LSR injection more precise, patented ultra-low speed control apply to optical part, patented plunger type injection can produce 0.01g micro water proof part. EdeX Technology also have diversified dual / triple LSR for customized needs.

宜得世矽膠射出機 / EdeX LSR Injection Molding Machine



- 水冷氣動閥針式噴嘴
良好的封膠控制，確保生產時產品穩定性，並滿足客戶客製化需求。

- Water cooling valve gate driving nozzle
Good sealing control makes sure production stability also meet customized requirements.

- 自動鎖固螺桿
根據LSR特性所開發，可大幅提升生產穩定性與精度。

- Auto/standard lock check ring
Designed by the properties of LSR, upgrade the stability and accuracy.

LSR 單射射出 LSR Injection Molding



■ 醫療面罩
Medical mask
2 cav



■ O-ring 密封環
O-ring sealing
8 cav



■ 醫療呼吸器
Medical part
2 cav



LSR 雙射射出 Dual LSR Injection Molding



■ 防水耳機連接器
埋入射出應用
Waterproof 3.5mm connector
Insert molding application
8 cav



■ 防水連接器
埋入射出應用
Waterproof type-C connector
Insert molding application
16 cav



■ 二次光學組件
Second lens
8 cav



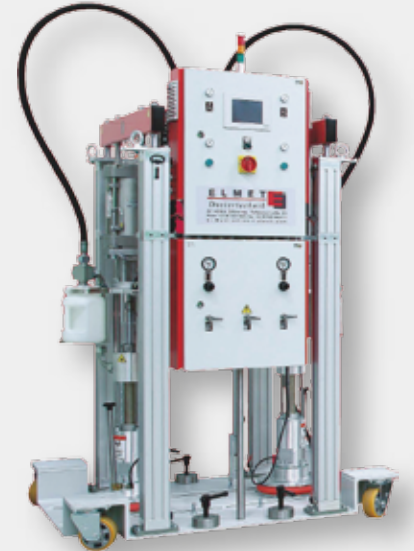
世界頂尖 強強結合 奧地利 LSR 矽膠供料系統 ELMET Dosing Systems From Austria

TOP3000S矽膠供料系統，使用專利附監測和修正功能的電腦控制迴路，可提供最精確穩定的矽膠A,B劑混合性能，供料偏差量在1%以下，第三劑可提供精準的色漿或添加劑混合性能，為客戶節省大量矽膠用料。

ELMET矽膠供料系統，基本上已達供料無微量下限的高超性能，可搭配任何微量矽膠射出，M+R、P+R、自黏性LSR等特殊製程，均可帶來最穩定生產的效果。

TOP3000S dosing system for silicone rubber injection molding adopts a patented closed controlled loop technic to enhance mixing accuracy of A/B components as well as to minimize material used difference less than 1%. Additionally, the color additive line provides excellent accuracy to mix the third component.

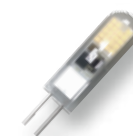
ELMET LSR dosing system is specialized in high-end injection molding process, particularly for injection volume less than 1 gram. Its applications include thermal plastic components plus rubber, metal frames plus rubber, self-bonding silicone rubber and optical related applications.



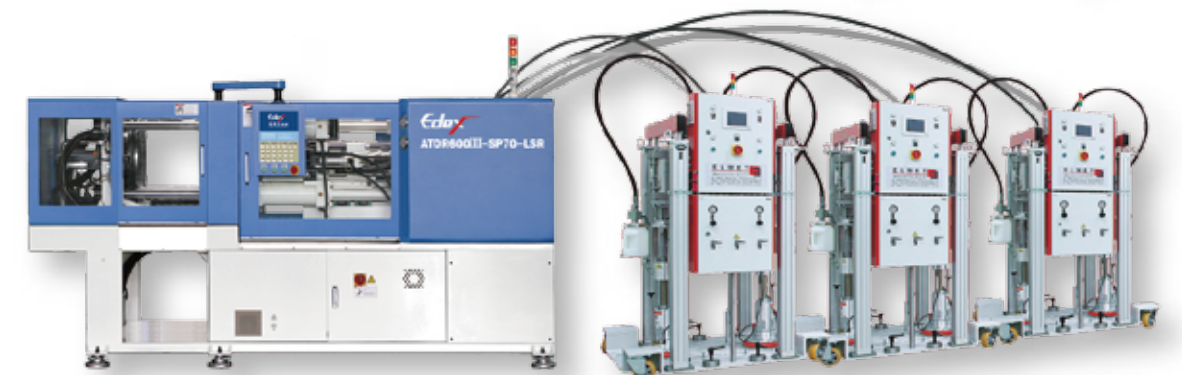
LSR 三射射出 Triple LSR Injection Molding



■ 光學封裝產品
埋入射出應用
Optical packaging product
Insert molding application
4 cav



■ 光學封裝產品
埋入射出應用
Optical packaging product
Insert molding application
4 cav





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